



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

December 22, 2011

Ms. Susan J. Kelly  
Senior Manager  
Tennessee Valley Authority  
400 West Summit Hill Drive  
Knoxville, Tennessee 37902

**Subject: EPA NEPA Review Comments on TVA's Final Environmental Impact Statement for "Muscle Shoals Reservation Redevelopment"; Colbert County, AL; CEQ #20110388**

Dear Ms. Kelly:

The U.S. Environmental Protection Agency (EPA) has reviewed the subject Tennessee Valley Authority (TVA) Final Environmental Impact Statement (FEIS) in accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. In this FEIS, TVA proposes the transfer and redevelopment of a 1,400-acre portion of the Muscle Shoals Reservation (MSR). TVA currently controls 2,600-acres of the MSR which is located in Colbert County, Alabama. The MSR is surrounded by the cities of Sheffield, Muscle Shoals, Tuscumbia, and Florence. EPA provided comments on the DEIS on February 28, 2011.

**Overview:**

EPA understands from information provided in the FEIS that TVA assumed custody and control of the 2,600-acre MSR in 1933 when it was transferred from the U.S. War Department. The MSR has served several uses over the past 80-plus years including chemical development, research, munitions and fertilizer production. We note that TVA has determined that a 1,400-acre portion of the MSR is no longer essential to its needs and local government officials and private developers have requested use of this land. EPA also understands from the FEIS that disposing of the selected 1,400-acre portion of the MSR would help reduce TVA's operations and maintenance (O&M) costs, enhance local economic development opportunities, and help TVA reduce its environmental footprint.

**Alternatives:**

In this FEIS, TVA has proposed the following six alternatives:

Alternative A - Under this proposal TVA would not dispose of the 1,400-acre property and would continue to administer and manage it in accordance with the *1996 Muscle Shoals/Wilson Dam Reservation Land Use Plan Final Environmental Assessment* (1996 Plan).<sup>1</sup>

Alternative B - Under this proposal TVA would make the MSR area available for conservation of natural resources and sustainable low-impact development uses. Alternative B is described as the “environmentally” preferred alternative. TVA suggests that this proposal could include, but is not limited to, recreation opportunities including: parks, greenways, and trails; nature and historic interpretation; open space; wildlife viewing and management; botanical gardens; nursery and horticulture production areas; green energy research and development; environmental education; and ecotourism. This alternative would propose more open green space than developed areas and TVA would encourage any development under this proposal to have small “environmental footprints.”<sup>2</sup>

Alternative C - Under this proposal TVA would make the MSR area available for a combination of commercial, retail, and residential development purposes. TVA suggest that this proposal could include: high-density businesses, malls, theaters, convenience stores, car washes, gas stations, mini- warehouses or self-storage buildings, retail shopping center developments, community centers, and health, religious, and educational institutions. TVA also suggests that under this proposal development on the MSR site could include: lower-density commercial recreation facilities such as resorts, athletic fields, stadiums, campgrounds, fairgrounds, and parks.<sup>3</sup>

Alternative D - Under this proposal TVA would make the MSR area available for industrial development uses. TVA states that the amount of land to be used by future industries could vary from a few hundred acres to the entire MSR area.<sup>4</sup>

Alternative E – Under this proposal TVA would require the MSR area to be sold and used for a mixture of land uses; including conservation and sustainable low-impact development; commercial, retail, and residential development; and industrial uses. Land will be developed in accordance with the Master Plan. TVA states that this alternative could include a combination of impacts ranging from those described in alternatives B through D.<sup>5</sup>

Alternative F - Under this proposal TVA would make the MSR area available for sale with no restrictions to future land uses, but would be guided by a Master Plan. Possible land uses include conservation, sustainable low-impact development, commercial, retail, residential, and industrial development. Development of the property would be guided by a Master Plan developed by TVA in conjunction with the Shoals community and the

---

<sup>1</sup> P.23

<sup>2</sup> p.23-25

<sup>3</sup> p.25-26

<sup>4</sup> p.26-27

<sup>5</sup> P.27

Northwest Alabama Cooperative District (NACD).<sup>6</sup> Alternative F is described as the “preferred” alternative for this FEIS. TVA states that this alternative could include a combination of impacts ranging from those described in alternatives B through E.<sup>7</sup>

### **Responses to Comments:**

We have focused our review on TVA’s specific responses to our comments on the DEIS (FEIS Vol. 2: App. B), and we have provided comments on the newly proposed preferred alternative. We generally focused our review and comments on ten primary areas that we commented on for the DEIS: 1) Hazardous Materials and Waste, 2) Wetlands, 3) Natural Resources, 4) Natural/Recreational Areas, 5) Water Quality, 6) Historic and Archaeological Resources, 7) Traffic, 8) Environmental Justice, 9) Stormwater/ Low Impact Development (LID), and 10) Cumulative Impact Analysis. TVA provided responses for of our comments outlined in our previous letter on the DEIS. In an effort to consolidate our responses we have chosen to focus our comments on how TVA responded to the above listed ten primary areas of concern. Lastly, we have provided additional recommendations with respect to alternative energy development opportunities on the MSR.

#### Hazardous Materials and Waste:

**TVA’s Response** – Comment noted. TVA Appreciates USEPA’s concurrence with ADEM guidance for MSR disposal and will ensure that all regulatory and procedural requirements are followed.<sup>8</sup>

**EPA’s Response** – No additional comment.

#### Wetlands:

**TVA’s Response** – Section 4.11 of the FEIS summarizes the Section 404 permitting process. TVA will include specific language in the conveyance documents pertaining to the sale of the property describing the presence of wetlands and all legal obligations regarding wetland avoidance, protection, and impact minimization. During the development of the Master Plan public input could set aside wetland and stream areas for preservation.<sup>9</sup>

**EPA’s Response** – EPA appreciates the summary inclusion of Section 404 permitting requirements within the FEIS and agrees with the addition of specific language in conveyance documents describing all legal obligations regarding wetland avoidance, protection, and minimization. Ultimately, impacts to wetland resources will not be well understood until the Master Planning process is complete. EPA strongly recommends wetland preservation on the MSR due to their irreplaceable function and value within the watershed and encourages TVA to support wetland preservation during the Master Planning process.

---

<sup>6</sup> P.10

<sup>7</sup> p.27-28

<sup>8</sup> FEIS Vol. 2 – p.58

<sup>9</sup> FEIS Vol. 2 – p.69-71

Natural Resources:

**TVA's Response** – The FEIS provides a range of impacts to natural resources through its evaluation of a variety of land use type alternatives. The development of a comprehensive Master Plan would better define land use on the MSR and enable a more accurate quantification of natural resource impacts.<sup>10</sup>

**EPA's Response** – EPA understands that the Master Planning process for the MSR is not concurrent with the NEPA process (additional comments provided below with regards to this issue). EPA remains concerned that no binding commitments with respect to land-use planning are being made by TVA through selection of Alternative F. EPA encourages TVA to take steps in the Master Planning process to protect natural resources on the MSR.

Natural / Recreational Areas:

**TVA's Response** – Comment noted. TVA envisions some forested areas and other green space being targeted for LID or set aside for protection of natural and recreation areas in the comprehensive Master Plan development.<sup>11</sup>

**EPA's Response** – Under the preferred Alternative F there are no restrictions on land use or a guarantee that development will include a mixture of land uses including LID and preservation. EPA remains concerned that binding commitments are not being made under Alternative F to protect natural and recreation areas currently used by the public. In general, EPA recommends that land use decisions made during the Master Planning process focus on maximizing the preservation of sensitive natural areas and high use recreational areas.

Water Quality:

**TVA's Response** – Under the preferred Alternative F, TVA would make the property available for unrestricted land use. During the development of the Master Plan, TVA would work with local governments and the public in the development guidelines of the MSR. TVA expects that some conservation would be established by the plan that includes sensitive areas, such as Pond Creek.<sup>12</sup>

**EPA's Response** – With the selection of Alternative F as the preferred alternative and no restrictions on future land use decisions EPA is unclear on how TVA plans to prevent/minimize water quality degradation in the Pond Creek watershed. In addition, EPA continues to be concerned that the true impact of the preferred alternative is not fully disclosed in the FEIS. EPA recommends that measures be taken in the Master Planning process to prevent/minimize water quality degradation in the Pond Creek watershed. As stated in our previous comments, Pond Creek is listed on ADEM's 2010 303(d) list for not meeting its designated use, and this water quality concerns should be consider during the Master Planning process for this area.

---

<sup>10</sup> FEIS Vol. 2 – p.38

<sup>11</sup> FEIS Vol. 2 – p.51

<sup>12</sup> FEIS Vol. 2 – p.68

Historic and Archaeological Resources:

**TVA's Response** – Additional information about the Muscle Shoals Historic District (MSHD) were added to FEIS in sections 3.4.1 and 3.4.2. The terms of the Memorandum of Agreement (MOA) between TVA and the Alabama State Historic Preservation Officer (AHPO) are summarized in section 4.4 of the FEIS and a copy of the MOA is included in Appendix A.<sup>13</sup>

**EPA's Response** – EPA appreciates the additional information provided in the FEIS regarding the MSHD and MOA.

Traffic:

**TVA's Response** – Funding for road construction and improvements would be funded by future landowners, Colbert County Road Commission, and/or Alabama Department of Transportation. The cost of the mitigation strategies would not have an impact on the selection of the Preferred Alternative for this EIS. Tables S-1 and 2-1 of the FEIS have been revised to include a clearer description of potential impacts of the Action Alternatives. TVA believes that there would be a level of service failure at the three intersections along the Hatch Boulevard corridor under the Preferred Alternative F. Additional information regarding future traffic counts are in Section 4.17 and table 4-4.<sup>14</sup>

**EPA's Response** – It is unclear how TVA has determined that there would be a level of service failure at three intersections under the Preferred Alternative without knowledge of future land uses, which will be determined under the Master Planning process.

Environmental Justice:

**TVA's Response** – Section 3.6 of the FEIS has been updated to reflect the recently released data from the United States Census of Population (2010). Excluding the fence-restricted portion of the MSR study area, which comprises approximately 540 acres of its developed interior core, the reservation is public land available to all populations, regardless of race or income levels. The potential for adverse loss of recreation opportunities would likely be greatest for the 1-mile segment of the National Recreation walk/bike trail and a separate 900-foot section of this trail. TVA would take necessary action to either maintain their present use or offset their loss by similar or increased opportunities provided elsewhere in the vicinity. Therefore, there would be no noticeable impacts to users of the trail network, including minority and low-income populations. FEIS Section 1.5.2 and 1.5.3 summarize TVA's public scoping efforts and their responses to public comments.<sup>15</sup>

**EPA's Response** – EPA appreciates TVA's work to incorporate environmental justice into their NEPA process and their commitment to minimize their loss of recreation opportunities on the MSR. However, EPA remains unclear on what efforts TVA has made to encourage EJ populations to participate in the planning and decision-making process for the MSR. Since the Master Planning process will ultimately guide the land

---

<sup>13</sup> FEIS Vol. 2 – p.32-33

<sup>14</sup> FEIS Vol. 2 – p.63-64

<sup>15</sup> FEIS Vol. 2 – p. 28-29

use decisions at the MSR, EPA recommends that TVA make every effort to involve the EJ community in this process.

#### Stormwater / Low Impact Development (LID)

**TVA's Response** – TVA would offer insights, identify potential benefits, and attempt to motivate local governments and citizens to consider appropriate LID strategies in the comprehensive master planning process. TVA would require development of the Master Plan and approve it prior to transfer of any study area property from federal ownership. In development of the Master Plan, TVA would include sensitive and societal valued resources in areas where environmental conflicts with development could likely be avoided and/or areas where such LID practices would be mandatory. As it relates to urban storm water management and green infrastructure, TVA believes that incorporation of LID-design principles into development plans would be cost effective and environmentally beneficial.<sup>16</sup>

**EPA's Response** – EPA applauds TVA's efforts to incorporate LID into the design of the MSR. We continue to encourage TVA and local stakeholders to work with the local Municipal Separate Storm Sewer System (MS4) program to incorporate LID practices into all phases of the redevelopment of this area. We strongly recommend that LID be incorporated into the Master Planning process. As we have previously stated, TVA has an opportunity to guide the redevelopment of the MSR which could be a model for the region for redeveloping federal lands in an environmentally responsible manner.

#### Cumulative Impact Analysis:

**TVA's Response** – Tables S-1 and 2-1 in the FEIS have been altered to give a more thorough analysis of the potential for cumulative impacts by resource across the alternatives; in addition to being referenced in the FEIS text. Chapter 4 of the FEIS has been revised to provide additional discussion of the cumulative impacts and how they might differ under the alternatives.<sup>17</sup>

**EPA's Response** – EPA appreciates the additional discussion related to cumulative impacts. However, EPA continues to be unclear on how TVA has determined the potential cumulative impacts of the proposed action (Alternative F) without knowledge of the final outcome of the Master Planning process.

#### Selection of New Preferred Alternative (Alternative F)

TVA has selected Alternative F as its NEPA preferred alternative in the FEIS. Alternative F is a newly proposed alternative and was not presented as an alternative in the DEIS. Under Alternative F, TVA would make the MSR area available for sale with no restrictions to future land uses. TVA states that development of the property on the MSR would be guided by a Master Plan and could include a mixture of conservation and sustainable low-impact development, commercial, retail, residential, and industrial uses. Consistent with our concerns expressed on the DEIS, we are concerned that no binding commitments are being made by TVA with respect to future land use and development of

---

<sup>16</sup> FEIS Vol. 2 – p.44

<sup>17</sup> FEIS Vol. 2 – p. 42-43

the MSR. In addition TVA concludes that impacts associated with Alternative F would likely be similar to those described under the other action alternatives, but without a complete Master Plan for the site, it is unclear what the actual impacts will be realized or necessary mitigation will be required.

EPA has concerns that the Master Planning process and the NEPA process have not been carried forward concurrently, and therefore the actual future development strategy for the MSR is unclear as presented in the FEIS. EPA understands that TVA and local stakeholders are working together during this Master Planning process. In addition EPA understands that TVA intends to delay the Record of Decision (ROD) for the FEIS until after completion of the Master Plan. EPA recommends that TVA encourage “Alternative B” type strategies during the Master Planning process and make binding commitments in the ROD that reflects this strategy.

Alternative Energy Development Opportunities:

EPA is encouraging renewable energy development on current and formerly contaminated land and mine sites when it is aligned with the community’s vision for the site. This initiative identifies the renewable energy potential of these sites and provides other useful resources for communities, developers, industry, state and local governments or anyone interested in reusing these sites for renewable energy development.<sup>18</sup>

EPA believes that certain areas of the MSR may present unique opportunities for alternative energy development. The MSR includes several areas that have land use restrictions due to contamination; therefore alternative energy projects in these areas should not significantly impact the ongoing Master Planning efforts. EPA encourages TVA to explore opportunities to develop these areas with alternative energy projects if feasible.

**Summary:**

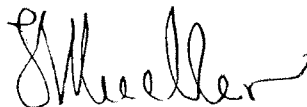
In conclusion, EPA’s primary concern is that the NEPA process and the Master Plan development have not been concurrent efforts. Selection of Alternative F leaves the reader unclear of potential impacts to resources and necessary mitigation. As stated in our comments on the DEIS, EPA continues to support Alternative B, the Conservation option, because it is the most environmentally protective alternative. Therefore, EPA encourages TVA and the local stakeholders in the Master Planning process to include protections to environmentally sensitive areas/resources and encourage LID approaches for areas proposed for development. Also, we encourage broad stakeholder outreach and participation in the Master Planning process and since it is an extension of the NEPA process there should be opportunity for review by the NEPA process participants. Lastly, EPA recommends the TVA make binding commitments in the ROD consistent with decisions made in the Master Planning process and as well as the NEPA process.

---

<sup>18</sup> *RE-Powering America’s Land: Renewable Energy on Potentially Contaminated Land and Mine Sites*  
<http://www.epa.gov/renewableenergyland/>

EPA appreciates the opportunity to review the FEIS. We request an opportunity to review the Master Plan and would like a copy of the ROD. Should TVA have questions regarding our comments, please feel free to contact Dan Holliman of my staff at 404/562-9531 or [holliman.daniel@epa.gov](mailto:holliman.daniel@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "H. Mueller", with a stylized, cursive script.

Heinz J. Mueller  
Chief, NEPA Program Office  
Office of Policy and Management